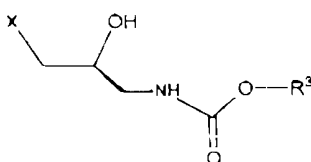


## AMENDMENTS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

### Listing of the Claims:

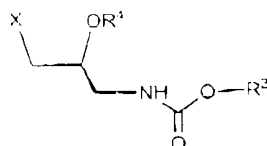
1. (Original) A (S)-secondary alcohol having a general structural formula.



wherein R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

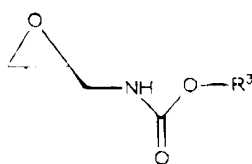
2. (Original) The (S)-secondary alcohol of claim 1 wherein R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.
3. (Original) The (S)-secondary alcohol of claim 2 wherein R<sup>3</sup> is tertiary butyl.
4. (Original) The (S)-secondary alcohol of claim 1 wherein X is Cl.
5. (Original) The (S)-secondary alcohol of claim 1 having a name tert-butyl (2S)-3-chloro-2-hydroxypropylcarbamate.
6. (Original) The (S)-secondary alcohol of claim 1 in crystalline form.

7. (Original) An (S)-ester having a general structural formula:



wherein  $\text{R}^3$  is  $\text{C}_1$ - $\text{C}_{10}$  alkyl,  $\text{R}^1$  is  $\text{C}_1$ - $\text{C}_5$  alkylcarbonyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

8. (Original) The (S)-ester of claim 7 where  $\text{R}^3$  is  $\text{C}_4$ - $\text{C}_7$  tertiary alkyl.
9. (Original) The (S)-ester of claim 8 where  $\text{R}^3$  is tertiary butyl.
10. (Original) The (S)-ester of claim 7 where X is Cl.
11. (Original) The (S)-ester of claim 7 having a name (1S)-2-[(tert-butoxycarbonyl)amino]-1-(chloromethyl)ethyl acetate.
12. (Original) The (S)-ester of claim 7 in crystalline form.
13. (Original) An (S)-epoxide having a general structural formula:



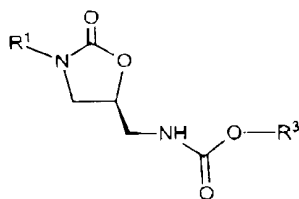
wherein  $\text{R}^3$  is  $\text{C}_1$ - $\text{C}_{10}$  alkyl, or a salt or hydrate thereof, in crystalline form.

14. (Original) The (S)-epoxide of claim 13 wherein  $\text{R}^3$  is  $\text{C}_4$ - $\text{C}_7$  tertiary alkyl

15. (Original) The (S)-epoxide of claim 14 wherein  $R^1$  is tertiary butyl.

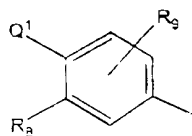
16. (Original) The (S)-epoxide of claim 13 having a name tert-butyl (2S)-oxiranylmethylcarbamate.

17. (Previously amended) An (S)-intermediate having a general structural formula:

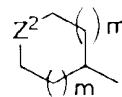
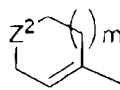
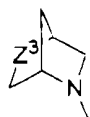
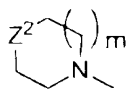
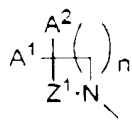


wherein  $R^1$  is an substituted aryl group and  $R^3$  is  $C_1$ - $C_{10}$  alkyl, or a salt or hydrate thereof, provided that when  $R^3$  is  $C_1$ - $C_4$  alkyl or  $C_7$ - $C_{11}$  araalkyl and  $R^1$  is phenyl, the substituents on  $R^1$  are not hydrogen, monofluoro, monochloro, monobromo, or mononitro substituent, alone or in combination with a 4-methylsulfonyl, 4-methylthio, 4-methylsulfinyl, 4-sulfamyl, 4-isopropyl, 4-( $C_1$ - $C_3$ alkyl)carbonyl, 4-ethyl, 4-(1-hydroxyethyl), or 4-acetyloxyacetyl substituent.

18. (Original) The (S)-intermediate of claim 17 wherein  $R^1$  is:



wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,



or Q and R<sup>5</sup> taken together are dihydropyrrolidine, optionally substituted with R<sup>12</sup>;

Z<sup>1</sup> is CH<sub>2</sub>(CH<sub>2</sub>)<sub>p</sub>, CH(OH)(CH<sub>2</sub>)<sub>p</sub>, or C(O);

Z<sup>2</sup> is (O)<sub>p</sub>S, O, or N(R<sup>13</sup>);

Z<sup>3</sup> is (O)<sub>i</sub>S or O;

A<sup>1</sup> is H or CH<sub>3</sub>;

A<sup>2</sup> is selected from the group consisting of:

- a) H,
- b) HO,
- c) CH<sub>3</sub>,
- d) CH<sub>3</sub>O,
- e) R<sup>14</sup>OCH<sub>2</sub>=C(O)NH,
- f) R<sup>15</sup>OC(O)NH,
- g) (C<sub>1</sub>-C<sub>3</sub>)alkoxycarbonyl,
- h) HOCH<sub>2</sub>,
- i) CH<sub>3</sub>ONH,
- j) CH<sub>3</sub>C(O),
- k) CH<sub>3</sub>C(O)CH<sub>2</sub>,
- l) CH<sub>3</sub>C(OCH<sub>2</sub>CH<sub>2</sub>O), and
- m) CH<sub>3</sub>C(OCH<sub>2</sub>CH<sub>2</sub>O)CH<sub>2</sub>,

or A<sup>1</sup>-C-A<sup>2</sup> taken together are CH<sub>3</sub>-C(OCH<sub>2</sub>CH<sub>2</sub>O), C(O), or C(=NR<sup>22</sup>);

R<sup>8</sup> is H or F, or is taken together with Q<sup>1</sup> as above;

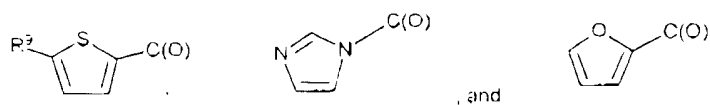
R<sup>9</sup> is H or F;

R<sup>10</sup> and R<sup>11</sup> are taken together with the N atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with R<sup>13</sup>;

R<sup>12</sup> is selected from the group consisting of:

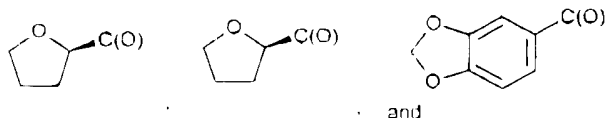
- a) CH<sub>3</sub>C(O)-,
- b) HC(O)-,
- c) Cl<sub>2</sub>CHC(O)-,
- d) HOCH<sub>2</sub>C(O)-,
- e) CH<sub>3</sub>SO<sub>2</sub>-,
- f) F<sub>2</sub>CHC(O)-,
- g) H<sub>3</sub>CC(O)OCH<sub>2</sub>C(O)-,
- h) HC(O)OCH<sub>2</sub>C(O)-,

- i)  $R^2 C(O)OCH_2C(O)-$ ,
- j)  $H_3CCHCH_2OCH_2C(O)-$ .
- k) benzylOCH<sub>2</sub>C(O)-.
- l)-m)



$R^{13}$  is selected from the group consisting of:

- a)  $R^{14}OC(R^{16})(R^{17})C(O)-$ ,
- b)  $R^{15}OC(O)-$ ,
- c)  $R^{18}C(O)-$ ,
- d)  $H_3CC(O)(CH_2)_2C(O)-$ ,
- e)  $R^{19}SO_2-$ ,
- f)  $HOCH_2C(O)-$ ,
- g)  $R^{20}(CH_2)_2-$ ,
- h)  $R^{21}C(O)OCH_2C(O)-$ ,
- i)  $(CH_3)_2NCH_2C(O)NH-$ ,
- j)  $NCCH_2-$ ,
- k)  $F_2CHCH_2-$ ,
- l)-m)



$R^{14}$  is H, CH<sub>3</sub>, benzyl, or CH<sub>3</sub>C(O)-;

$R^{15}$  is (C<sub>1</sub>-C<sub>3</sub>)alkyl, aryl, or benzyl;

$R^{16}$  and  $R^{17}$ , independently, are H or CH<sub>3</sub>;

$R^{18}$  is selected from the group consisting of:

- a)  $H-$ ,
- b)  $(C_1-C_4)alkyl$ ,
- c)  $aryl(CH_2)_m$ ,
- d)  $ClH_2C-$ ,
- e)  $Cl_2HC-$ ,
- f)  $FH_2C-$ ,
- g)  $F_2HC-$ , and
- h)  $(C_3-C_6)cycloalkyl$ ;

$R^{19}$  is selected from the group consisting of:

- a)  $CH_3$ ,
- b)  $CH_2Cl$ ,
- c)  $CH_2CH=CH_2$ ,
- d)  $aryl$ , and
- e)  $CH_2CN$ ;

$R^{20}$  is  $OH$ ,  $CH_3O-$ , or  $F$ ;

$R^{21}$  is:

- a)  $CH_3-$ ,
- b)  $HOCH_2-$ ,
- c)  $aniline$ , or
- d)  $(CH_3)_2N-CH_2-$ ,

$R^{22}$  is selected from the group consisting of:

- a)  $HO-$
- b)  $CH_3O-$
- c)  $H_2N-$
- d)  $CH_3OC(O)O-$ ,
- e)  $CH_3C(O)OCH_2C(O)O-$ ,
- f)  $aryl-CH_2OCH_2C(O)O-$ ,
- g)  $HO(CH_2)_2O-$ ,
- h)  $CH_3OCH_2O(CH_2)_2O-$ , and
- i)  $CH_3OCH_2O-$ ;

$m$  is 0 or 1;

$n$  is 1-3;

$p$  is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F,
- b) Cl,
- c) OCH<sub>3</sub>,
- d) OH,
- e) NH<sub>2</sub>,
- f) (C<sub>1</sub>-C<sub>4</sub>)alkyl,
- g) OC(O)OCH<sub>3</sub>, or
- h) NO<sub>2</sub>;

and protected forms thereof.

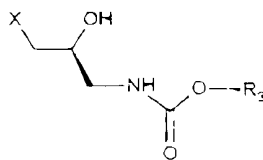
19. (Original) The (S)-intermediate of claim 18 wherein R<sup>1</sup> is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ<sup>6</sup>-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

20. (Original) An (S)-intermediate of claim 17 where R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.

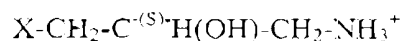
21. (Original) An (S)-intermediate of claim 20 where R<sup>3</sup> is tertiary butyl.

22. (Original) An (S)-intermediate of claim 17 having a name (S)-N-[[3-(3-Fluoro-4-morpholinyl)phenyl]-2-oxo-5-oxazolidinyl]methyl](tert-butoxy)carbamide.

23. (Original) A method of preparing a secondary alcohol having a general structural formula:

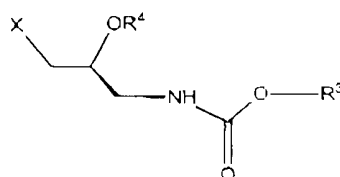


comprising contacting an (S)-3-carbon amino alcohol having a general structural formula:



with a base and an carbonylating agent selected from the group consisting of a haloformate having a formula  $R^1O-CO-X$  and a dialkyldicarbonate having a formula  $R^3OCO_2R^3$ .

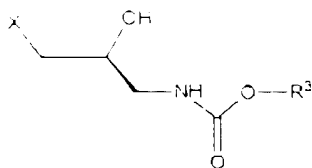
24. (Original) The method of claim 23 further comprising isolating the secondary alcohol in a crystalline form.
25. (Original) The method of claim 23 wherein the base is a tri(C<sub>1</sub>-C<sub>5</sub> alkyl)amine.
26. (Original) A method of preparing a (S)-secondary ester having a general structural formula:



wherein X is a halogen, alkylsulfonyl, or arylsulfonyl, R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, and R<sup>4</sup> is C<sub>1</sub>-C<sub>5</sub> alkylcarbonyl, or a salt or hydrate thereof.

comprising contacting an (S)-secondary alcohol having a general structural formula:



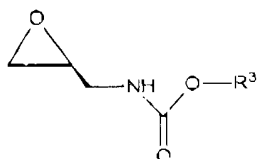


with a base and an acylating agent selected from the group consisting of an acid anhydride having a formula  $O(R^4)_2$ , and an activated acid having a formula  $R^4X$ .

27. (Original) The method of claim 26 further comprising isolating the secondary alcohol in a crystalline form.

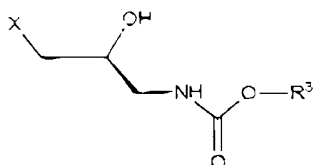
28. (Original) The method of claim 26 wherein the base is a tri( $C_1$ - $C_5$  alkyl)amine.

29. (Original) A method of preparing a (S)-epoxide having a general structural formula:



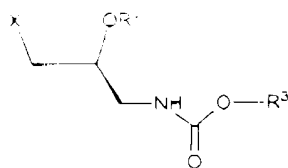
wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl, or a salt or hydrate thereof, comprising contacting

a) an (S)-secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyl, or arylsulfonyl; or

b) an (S)-ester having a general structural formula:

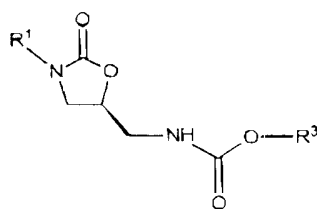


wherein  $R^4$  is  $C_1$ - $C_5$  alkylcarbonyl, with a lithium cation and a base whose conjugate acid has a  $pK_a$  of greater than about 8.

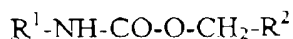
30. (Original) The method of claim 29 further comprising isolating the secondary alcohol in a crystalline form.

31. (Original) The method of claim 29 wherein the base is a tertiary-butoxide

32. (Currently amended) A The method of claim 58 of preparing an (S)-oxazolidinone having a general structural formula:



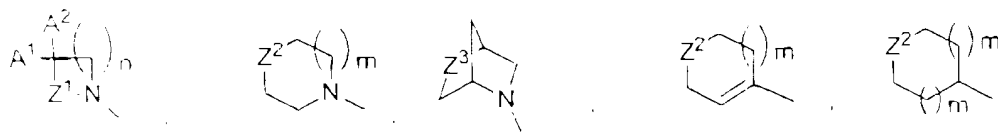
wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl, and  $R^1$  is optionally substituted aryl, or a salt or hydrate thereof, comprising contacting a carbamate having a general structural formula:



wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, phenyl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two  $Cl$ ,  $C_1$ - $C_4$  alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, and isobornyl, or a salt or hydrate thereof, with

i) a secondary alcohol having a general structural formula:





or  $Q^1$  and  $R^8$  taken together are dihydropyrrolidine, optionally substituted with  $R^{12}$ ;

$Z^1$  is  $CH_2(CH_2)_p$ ,  $CH(OH)(CH_2)_p$ , or  $C(O)$ ;

$Z^2$  is  $(O)_pS$ ,  $O$ , or  $N(R^{13})$ ;

$Z^3$  is  $(O)_pS$  or  $O$ ;

$A^1$  is  $H$  or  $CH_3$ ;

$A^2$  is selected from the group consisting of:

- a)  $H$ ,
- b)  $HO$ ,
- c)  $CH_3$ ,
- d)  $CH_3O$ ,
- e)  $R^{14}OCH_2=C(O)NH$ ,
- f)  $R^{15}OC(O)NH$ ,
- g)  $(C_1-C_3)$ alkoxycarbonyl,
- h)  $HOCH_2$ ,
- i)  $CH_3ONH$ ,
- j)  $CH_3C(O)$ ,
- k)  $CH_3C(O)CH_2$ ,
- l)  $CH_3C(OCH_2CH_2O)$ , and
- m)  $CH_3C(OCH_2CH_2O)CH_2$ ,

or  $A^1-C-A^2$  taken together are  $CH_2-C(OCH_2CH_2O)$ ,  $C(O)$ , or  $C(=NR^{22})$ ;

$R^8$  is  $H$  or  $F$ , or is taken together with  $Q^1$  as above;

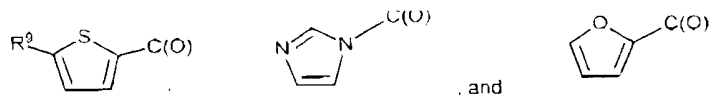
$R^9$  is  $H$  or  $F$ ;

$R^{10}$  and  $R^{11}$  are taken together with the  $N$  atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with  $R^{13}$ ;

$R^{12}$  is selected from the group consisting of:

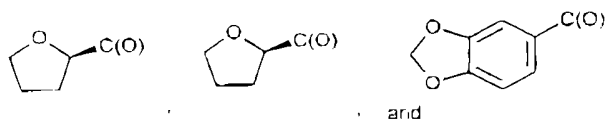
- a)  $CH_3C(O)-$ ,

- b)  $\text{HC(O)}-$ ,
- c)  $\text{C}_6\text{H}_5\text{CHC(O)}-$ ,
- d)  $\text{HOCH}_2\text{C(O)}-$ ,
- e)  $\text{CH}_3\text{SO}_2-$ ,
- f)  $\text{F}_2\text{CHC(O)}-$ ,
- g)  $\text{H}_3\text{CC(O)OCH}_2\text{C(O)}-$ ,
- h)  $\text{HC(O)OCH}_2\text{C(O)}-$ ,
- i)  $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$ ,
- j)  $\text{H}_3\text{CCHCH}_2\text{OCH}_2\text{C(O)}-$ ,
- k)  $\text{benzylOCH}_2\text{C(O)}-$ ,
- l)-m)



$\text{R}^{12}$  is selected from the group consisting of:

- a)  $\text{R}^{14}\text{OC(R}^{16})(\text{R}^{17})\text{C(O)}-$ ,
- b)  $\text{R}^{15}\text{OC(O)}-$ ,
- c)  $\text{R}^{18}\text{C(O)}-$ ,
- d)  $\text{H}_3\text{CC(O)(CH}_2)_2\text{C(O)}$ ,
- e)  $\text{R}^{19}\text{SO}_2-$ ,
- f)  $\text{HOCH}_2\text{C(O)}-$ ,
- g)  $\text{R}^{20}(\text{CH}_2)_2-$ ,
- h)  $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$ ,
- i)  $(\text{CH}_3)_2\text{NCH}_2\text{C(O)NH}-$ ,
- j)  $\text{NCCH}_2-$ ,
- k)  $\text{F}_2\text{CHCH}_2-$ ,
- l)-m)



$\text{R}^{14}$  is  $\text{H}$ ,  $\text{CH}_3$ , benzyl, or  $\text{CH}_3\text{C(O)}-$ .

$R^{18}$  is  $(C_1-C_4)$ alkyl, aryl, or benzyl;

$R^{19}$  and  $R^{17}$ , independently, are H or  $CH_3$ ;

$R^{19}$  is selected from the group consisting of:

- a) H-,
- b)  $(C_1-C_4)$ alkyl,
- c) aryl $(CH_2)_m$ ,
- d)  $CH_2C-$ ,
- e)  $CH_2HC-$ ,
- f)  $FH_2C-$ ,
- g)  $F_2HC-$ , and
- h)  $(C_3-C_6)$ cycloalkyl;

$R^{19}$  is selected from the group consisting of:

- a)  $CH_3$ ,
- b)  $CH_2Cl$ ,
- c)  $CH_2CH=CH_2$ ,
- d) aryl, and
- e)  $CH_2CN$ ;

$R^{20}$  is OH,  $CH_3O-$ , or F;

$R^{21}$  is:

- a)  $CH_3-$ ,
- b)  $HOCH_2-$ ,
- c) aniline, or
- d)  $(CH_3)_2N-CH_2-$ ,

$R^{22}$  is selected from the group consisting of:

- a) HO-
- b)  $CH_3O-$
- c)  $H_2N-$
- d)  $CH_3OC(O)O-$ ,
- e)  $CH_3C(O)OCH_2C(O)O-$ ,
- f) aryl- $CH_2OCH_2C(O)O-$ ,
- g)  $HO(CH_2)_2O-$ ,
- h)  $CH_3OCH_2O(CH_2)_2O-$ , and
- i)  $CH_3OCH_2O-$ ;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F,
- b) Cl,
- c) OCH<sub>3</sub>,
- d) OH,
- e) NH<sub>2</sub>,
- f) (C<sub>1</sub>-C<sub>4</sub>)alkyl,
- g) OC(O)OCH<sub>3</sub>, or
- h) NO<sub>2</sub>;

and protected forms thereof.

35. (Original) The method of claim 34 wherein R<sup>1</sup> is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ<sup>6</sup>-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

36. (Original) The method of claim 32 where R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.

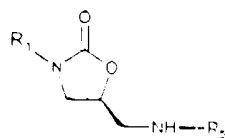
37. (Original) The method of claim 36 where R<sup>3</sup> is tertiary butyl.

38. (Original) The method of claim 32 where R<sup>2</sup> is methyl.

39. (Original) The method of claim 32 where X is Cl.

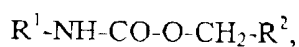
40. (Original) The method of claim 32 wherein the (S)-oxazolidinone is (S)-N-[[3-(3-fluoro-4-morpholinylphenyl)-2-oxo-5-oxazolidinyl]methyl]t-butoxycarbamide.

41. (Currently amended) A The method of claim 58 of preparing an (S)-oxazolidinone having a general structural formula:



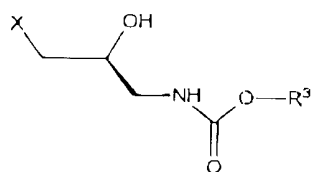
wherein  $R^5$  is  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  cycloalkylcarbonyl,  $C_1$ - $C_6$  alkylthiocarbonyl, or  $C_1$ - $C_6$  cycloalkylthiocarbonyl, and  $R^1$  is optionally substituted aryl, or a salt or hydrate thereof, comprising:

- (a) contacting a carbamate having a general formula



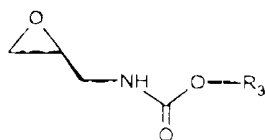
wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, aryl phenyl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl,  $C_1$ - $C_4$  alkyl, nitro, cyano, or tri-fluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethyl-silylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, 2-furanylmethyl, and isobornyl, and hydrogen; with

- i) a secondary alcohol of a general structural formula:



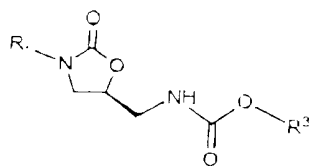
wherein X is a halogen, alkylsulfonyloxy, or arylsulfonyloxy, and  $R^3$  is  $C_1$ - $C_{10}$  alkyl; or

- ii) an epoxide having a general structural formula:





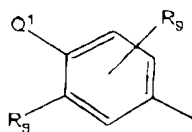
in the presence of a lithium cation and a base whose conjugate acid has a pKa of greater than about 8, to provide a ring-1-butylcarbamyl compound of a general structural formula:



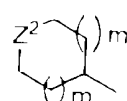
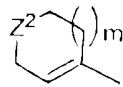
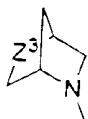
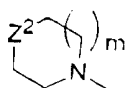
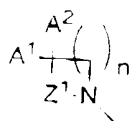
- (b) contacting the reaction product of step (a) with aqueous acid; and
- (c) contacting the reaction product of step (2) with a base and an acylating or thioacylating agent selected from the group consisting of (i) an acid anhydride of the structural formula  $O(R^5)_2$ , (ii) an activated acid of the structural formula  $R^5X$ , or (iii) a dithioester of the structural formula  $R^5S(C=S)R^5$ , wherein  $R^5$  is  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  cycloalkylcarbonyl,  $C_1$ - $C_6$  alkylthiocarbonyl, or  $C_1$ - $C_6$  cycloalkylthiocarbonyl, and  $X$  is halogen, alkylsulfonyloxy, or arylsulfonyloxy.

42. (Original) The method of claim 41 further comprising isolating the (S)-oxazolidonone in a crystalline form.

43. (Original) The method of claim 41 wherein  $R^1$  is:



wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,



or  $Q^1$  and  $R^8$  taken together are dihydropyrrolidine, optionally substituted with  $R^{12}$ ,

$Z^1$  is  $\text{CH}_2(\text{CH}_2)_p$ ,  $\text{CH}(\text{OH})(\text{CH}_2)_p$ , or  $\text{C}(\text{O})$ ;

$Z^2$  is  $(\text{O})_p\text{S}$ ,  $\text{O}$ , or  $\text{N}(\text{R}^{13})$ ;

$Z^3$  is  $(\text{O})_p\text{S}$  or  $\text{O}$ ;

$A^1$  is  $\text{H}$  or  $\text{CH}_3$ ;

$A^2$  is selected from the group consisting of:

- a)  $\text{H}$ ,
- b)  $\text{HO}$ ,
- c)  $\text{CH}_3$ ,
- d)  $\text{CH}_3\text{O}$ ,
- e)  $\text{R}^{14}\text{OCH}_2=\text{C}(\text{O})\text{NH}$ ,
- f)  $\text{R}^{15}\text{OC}(\text{O})\text{NH}$ ,
- g)  $(\text{C}_1-\text{C}_3)\text{alkoxycarbonyl}$ ,
- h)  $\text{HOCH}_2$ ,
- i)  $\text{CH}_3\text{ONH}$ ,
- j)  $\text{CH}_3\text{C}(\text{O})$ ,
- k)  $\text{CH}_3\text{C}(\text{O})\text{CH}_2$ ,
- l)  $\text{CH}_3\text{C}(\text{OCH}_2\text{CH}_2\text{O})$ , and
- m)  $\text{CH}_3\text{C}(\text{OCH}_2\text{CH}_2\text{O})\text{CH}_2$ ,

or  $A^1\text{-C-A}^2$  taken together are  $\text{CH}_3\text{-C}(\text{OCH}_2\text{CH}_2\text{O})$ ,  $\text{C}(\text{O})$ , or  $\text{C}(=\text{NR}^{22})$ ;

$\text{R}^8$  is  $\text{H}$  or  $\text{F}$ , or is taken together with  $\text{Q}^1$  as above;

$\text{R}^9$  is  $\text{H}$  or  $\text{F}$ ;

$\text{R}^{10}$  and  $\text{R}^{11}$  are taken together with the  $\text{N}$  atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with  $\text{R}^{12}$ ;

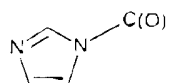
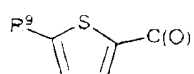
$\text{R}^{12}$  is selected from the group consisting of

- a)  $\text{CH}_3\text{C}(\text{O})\text{-}$ ,
- b)  $\text{HC}(\text{O})\text{-}$ ,
- c)  $\text{Cl}_2\text{CHC}(\text{O})\text{-}$ ,
- d)  $\text{HOCH}_2\text{C}(\text{O})\text{-}$ ,
- e)  $\text{CH}_3\text{SO}_2\text{-}$ ,
- f)  $\text{F}_2\text{CHC}(\text{O})\text{-}$ ,
- g)  $\text{H}_2\text{CC}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{-}$ ,
- h)  $\text{HC}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{-}$ ,
- i)  $\text{R}^{21}\text{C}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{-}$ ,

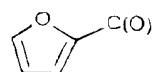
j)  $\text{H}_3\text{CCHCH}_2\text{OCH}_2\text{C(O)}-$ ,

k)  $\text{benzylOCH}_2\text{C(O)}-$ ,

l)-m)



, and



$\text{R}^{13}$  is selected from the group consisting of:

a)  $\text{R}^{14}\text{OC(R}^{16}\text{)(R}^{17}\text{)C(O)}-$ ,

b)  $\text{R}^{15}\text{OC(O)}-$ ,

c)  $\text{R}^{18}\text{C(O)}-$ ,

d)  $\text{H}_3\text{CC(O)(CH}_2)_2\text{C(O)}$ ,

e)  $\text{R}^{19}\text{SO}_2$ ,

f)  $\text{HOCH}_2\text{C(O)}-$ ,

g)  $\text{R}^{20}(\text{CH}_2)_2-$ ,

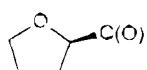
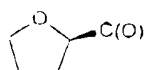
h)  $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$ ,

i)  $(\text{CH}_3)_2\text{NCH}_2\text{C(O)NH}-$ ,

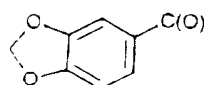
j)  $\text{NCCH}_2-$ ,

k)  $\text{F}_2\text{CHCH}_2$ ,

l)-m)



, and



$\text{R}^{14}$  is H,  $\text{CH}_3$ , benzyl, or  $\text{CH}_3\text{C(O)}-$ ;

$\text{R}^{15}$  is  $(\text{C}_1\text{-C}_3)$ alkyl, aryl, or benzyl;

$\text{R}^{16}$  and  $\text{R}^{17}$ , independently, are H or  $\text{CH}_3$ ;

$\text{R}^{18}$  is selected from the group consisting of:

a) H-

b)  $(\text{C}_1\text{-C}_4)$ alkyl,

c)  $\text{aryl}(\text{CH}_2)_m$ ,

- d)  $\text{ClH}_2\text{C}-$ ,
- e)  $\text{Cl}_2\text{HC}-$ ,
- f)  $\text{FH}_2\text{C}-$ ,
- g)  $\text{F}_2\text{HC}-$ , and
- h)  $(\text{C}_3-\text{C}_6)\text{cycloalkyl}$ ;

$\text{R}^{19}$  is selected from the group consisting of:

- a)  $\text{CH}_3$ ,
- b)  $\text{CH}_2\text{Cl}$ ,
- c)  $\text{CH}_2\text{CH}=\text{CH}_2$ ,
- d) aryl, and
- e)  $\text{CH}_2\text{CN}$ ;

$\text{R}^{20}$  is  $\text{OH}$ ,  $\text{CH}_3\text{O}-$ , or  $\text{F}$ ;

$\text{R}^{21}$  is:

- a)  $\text{CH}_3-$ ,
- b)  $\text{HOCH}_2-$ ,
- c) aniline, or
- d)  $(\text{CH}_3)_2\text{N}-\text{CH}_2-$ ,

$\text{R}^{22}$  is selected from the group consisting of:

- a)  $\text{HO}-$
- b)  $\text{CH}_3\text{O}-$
- c)  $\text{H}_2\text{N}-$
- d)  $\text{CH}_3\text{OC}(\text{O})\text{O}-$ ,
- e)  $\text{CH}_3\text{C}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- f)  $\text{aryl}-\text{CH}_2\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- g)  $\text{HO}(\text{CH}_2)_2\text{O}-$ ,
- h)  $\text{CH}_3\text{OCH}_2\text{O}(\text{CH}_2)_2\text{O}-$ , and
- i)  $\text{CH}_3\text{OCH}_2\text{O}-$ ;

$m$  is 0 or 1;

$n$  is 1-3;

$p$  is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a)  $\text{F}$ ,
- b)  $\text{Cl}$ ,
- c)  $\text{OCH}_3$ ,

- d) OH,
- e) NH<sub>2</sub>,
- f) (C<sub>1</sub>-C<sub>4</sub>)alkyl,
- g) OC(O)OCH<sub>3</sub>, or
- h) NO<sub>2</sub>;

and protected forms thereof.

44. (Original) The method of claim 43 wherein R<sup>1</sup> is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ<sup>6</sup>-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

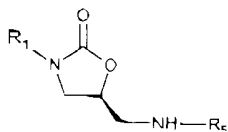
45. (Original) The method of claim 41 wherein R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.

46. (Original) The method of claim 45 wherein R<sup>3</sup> is tertiary butyl.

47. (Original) The method of claim 41 wherein R<sup>2</sup> is methyl.

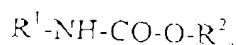
48. (Original) The method of claim 41 wherein X is Cl.

49. A method of preparing an (S)-oxazolidinone having a general structural formula:

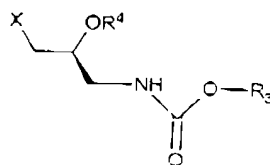


wherein R<sup>1</sup> is optionally substituted aryl, and R<sup>5</sup> is C<sub>1</sub>-C<sub>6</sub> alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub> cycloalkylcarbonyl, C<sub>1</sub>-C<sub>6</sub> alkylthiocarbonyl, or C<sub>1</sub>-C<sub>6</sub> cycloalkylthiocarbonyl; or a salt or hydrate thereof, comprising:

- (a) contacting a carbamate having general structural formula:

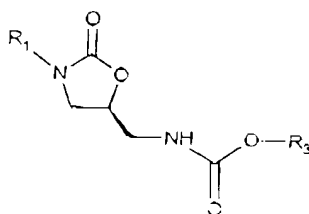


wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, aryl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl,  $C_1$ - $C_4$  alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, 2-furanylmethyl, isobornyl, and hydrogen; with a (S)-protected alcohol/ester having a general structural formula:

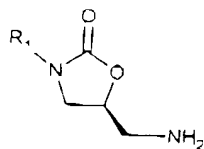


wherein X is a halogen, alkylsulfonyl, or arylsulfonyl;  $R^3$  is  $C_1$ - $C_{10}$  alkyl; and  $R^4$  is hydrogen or  $C_1$ - $C_5$  alkylcarbonyl;

in the presence of a lithium cation and a base whose conjugate acid has a  $pK_a$  of greater than about 8, to provide an (S)-protected oxazolidinone having a general structural formula:



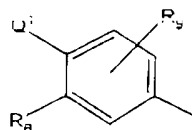
(b) contacting the reaction product of step (a) with an aqueous acid to produce an (S)-oxazolidinone free amine having a general structural formula:



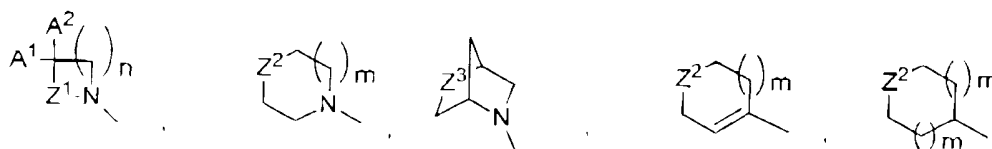
and (c) contacting the reaction product of step (b) with a base and an acylating or thioacylating agent selected from the group consisting of (i) an acid anhydride of the structural formula  $O(R^5)_2$ , (ii) an activated acid of the structural formula  $R^5X$ , or (iii) a dithioester of the structural formula  $R^5S(C=S)R^5$ , wherein  $R^5$  is  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  cycloalkylcarbonyl,  $C_1$ - $C_6$  alkylthiocarbonyl, or  $C_1$ - $C_6$  cycloalkylthiocarbonyl, and  $X$  is halogen, alkylsulfonyl, or arylsulfonyl.

50. (Original) The method of claim 49 further comprising isolating the (S)-oxazolidonone in a crystalline form.

51. (Original) The method of claim 49 wherein  $R^1$  is:



wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,



or  $Q^1$  and  $R^8$  taken together are dihydropyrrolidine, optionally substituted with  $R^{12}$ ;

$Z^1$  is  $CH_2(CH_2)_p$ ,  $CH(OH)(CH_2)_p$ , or  $C(O)$ ;

$Z^2$  is  $(O)_pS$ ,  $O$ , or  $N(R^{13})$ ;

$Z^3$  is  $(O)_pS$  or  $O$ ;

$A^1$  is  $H$  or  $CH_3$ ;

$A^2$  is selected from the group consisting of:

- a)  $H$ ,
- b)  $HO$ ,
- c)  $CH_3$ ,
- d)  $CH_3O$ ,
- e)  $R^{14}OCH_2=C(O)NH$ ,

- f)  $R^{15}OC(O)NH$ ,
- g)  $(C_1-C_3)$ alkoxycarbonyl,
- h)  $HOCH_2$ ,
- i)  $CH_3ONH$ ,
- j)  $CH_2C(O)$ ,
- k)  $CH_3C(O)CH_2$ ,
- l)  $CH_3C(OCH_2CH_2O)$ , and
- m)  $CH_3C(OCH_2CH_2O)CH_2$ ,

or  $A^1-C-A^2$  taken together are  $CH_3-C(OCH_2CH_2O)$ ,  $C(O)$ , or  $C(=NR^{22})$ ;

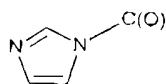
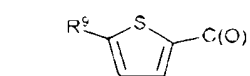
$R^8$  is H or F, or is taken together with  $Q^1$  as above;

$R^9$  is H or F;

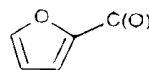
$R^{10}$  and  $R^{11}$  are taken together with the N atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with  $R^{13}$ ;

$R^{12}$  is selected from the group consisting of:

- a)  $CH_3C(O)-$ ,
- b)  $HC(O)-$ ,
- c)  $Cl_2CHC(O)-$ ,
- d)  $HOCH_2C(O)-$ ,
- e)  $CH_3SO_2-$ ,
- f)  $F_2CHC(O)-$ ,
- g)  $H_2CC(O)OCH_2C(O)-$ ,
- h)  $HC(O)OCH_2C(O)-$ ,
- i)  $R^{21}C(O)OCH_2C(O)-$ ,
- j)  $H_3CCHCH_2OCH_2C(O)-$ ,
- k)  $benzylOCH_2C(O)-$ ,



and

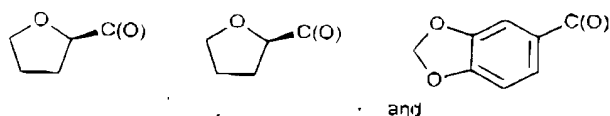


$R^{13}$  is selected from the group consisting of:

- a)  $R^{14}OC(R^{16})(R^{17})C(O)-$ ,



- b)  $R^{15}OC(O)-$ ,
- c)  $R^{18}C(O)-$ ,
- d)  $H_3CC(O)(CH_2)_2C(O)-$ ,
- e)  $R^{19}SO_2-$ ,
- f)  $HOCH_2C(O)-$ ,
- g)  $R^{20}(CH_2)_2-$ ,
- h)  $R^{21}C(O)OCH_2C(O)-$ ,
- i)  $(CH_3)_2NCH_2C(O)NH-$ ,
- j)  $NCCH_2-$ ,
- k)  $F_2CHCH_2-$ ,
- l)-m)



$R^{14}$  is H,  $CH_3$ , benzyl, or  $CH_3C(O)-$ ;

$R^{15}$  is  $(C_1-C_3)$ alkyl, aryl, or benzyl;

$R^{16}$  and  $R^{17}$ , independently, are H or  $CH_3$ ;

$R^{18}$  is selected from the group consisting of:

- a)  $H-$ ,
- b)  $(C_1-C_4)$ alkyl,
- c)  $aryl(CH_2)_m$ ,
- d)  $ClH_2C-$ ,
- e)  $Cl_2HC-$ ,
- f)  $FH_2C-$ ,
- g)  $F_2HC-$ , and
- h)  $(C_3-C_6)$ cycloalkyl;

$R^{19}$  is selected from the group consisting of:

- a)  $CH_3$ ,
- b)  $CH_2Cl$ ,
- c)  $CH_2CH=CH_2$ ,
- d) aryl, and
- e)  $CH_2CN$ ;

$R^{20}$  is OH,  $CH_2O-$ , or F;

$R^{21}$  is:

- a)  $CH_3-$ ,
- b)  $HOCH_2-$ ,
- c) aniline, or
- d)  $(CH_3)_2N-CH_2-$ ,

$R^{22}$  is selected from the group consisting of:

- a)  $HO-$
- b)  $CH_3O-$
- c)  $H_2N-$
- d)  $CH_3OC(O)O-$ ,
- e)  $CH_3C(O)OCH_2C(O)O-$ ,
- f) aryl- $CH_2OCH_2C(O)O-$ ,
- g)  $HO(CH_2)_2O-$ ,
- h)  $CH_3OCH_2O(CH_2)_2O-$ , and
- i)  $CH_3OCH_2O-$ ;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl substituted with one of the following:

- a) F,
- b) Cl,
- c)  $OCH_3$ ,
- d) OH,
- e)  $NH_2$ ,
- f)  $(C_1-C_4)$ alkyl,
- g)  $OC(O)OCH_3$ , or
- h)  $NO_2$ ;

and protected forms thereof.

52. (Original) The method of claim 51 wherein  $R^1$  is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1 $\lambda^6$ -thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-

4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

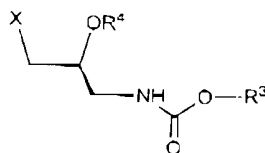
53. (Original) The method of claim 49 wherein  $R^3$  is  $C_4$ - $C_7$  tertiary alkyl.

54. (Original) The method of claim 53 wherein  $R^3$  is tertiary butyl.

55. (Original) The method of claim 49 wherein  $R^2$  is methyl.

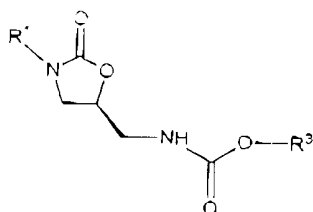
56. (Original) The method of claim 49 wherein X is Cl.

57. (Previously amended) A compound having a the S-configuration of general structural formula:

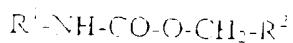


wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl,  $R^4$  is hydrogen or  $C_1$ - $C_5$  alkylcarbonyl, X is halogen, alkylsulfonyloxy, arylsulfonyloxy, or taken together with  $OR^4$  to form an epoxide.

58. (Previously amended) A method of preparing an (S)-oxazolidinone having a general structural formula:

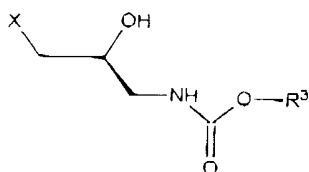


wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl, and  $R^1$  is optionally substituted aryl, or a salt or hydrate thereof, comprising contacting a carbamate having a general structural formula:

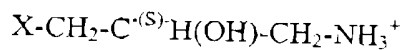


wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, phenyl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl,  $C_1$ - $C_2$  alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, and isobornyl, or a salt or hydrate thereof, with

- i) a secondary alcohol having a general structural formula:

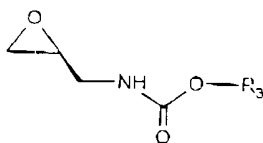


wherein X is halogen, alkylsulfonyloxy, or arylsulfonyloxy, or a salt or hydrate thereof made by the process comprising contacting an (S)-3-carbon amino alcohol having a general structural formula:

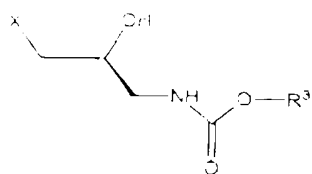


with a base and an carbonylating agent selected from the group consisting of a haloformate having a formula  $R^3O-CO-X$  and a dialkyldicarbonate having a formula  $R^3OCO_2R^3$ ;

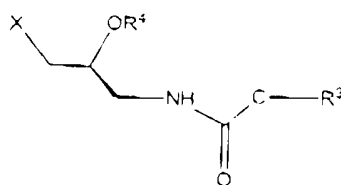
- ii) an (S)-epoxide having a general structural formula:



made by the process comprising contacting an (S)-secondary alcohol having a general structural formula:

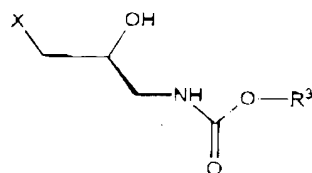


with a base and an acylating agent selected from the group consisting of an acid anhydride having a formula  $O(R^4)_2$ , and an activated acid having a formula  $R^4X$ ; or iii) an (S)-ester having a general structural formula:



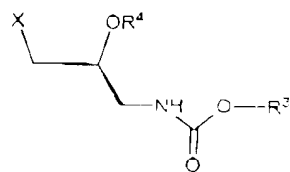
wherein  $R^4$  is  $C_1$ - $C_5$  alkylcarbonyl made by the process comprising contacting

a) an (S)-secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyloxy, or arylsulfonyloxy; or

b) an (S)-ester having a general structural formula:



wherein  $R^4$  is  $C_1$ - $C_5$  alkylcarbonyl, with a lithium cation and a base whose conjugate acid has a pKa of greater than about 8;

in the presence of a lithium cation and a base whose conjugate acid has a pKa of greater than about 8.